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<div>EXAMINER</div> <div>DANIEL JR, WILLIE J</div>				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/805,929

Applicant(s)

LEE, DONG-YOUL

Examiner

Willie J. Daniel, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 16-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-28 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to applicant's amendment filed on 21 November 2007. **Claims 16-30** are now pending in the present application and **claims 1-15** and **29** are canceled. This office action is made **Non-Final**.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 November 2007 has been entered.

### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on
  - a. 21 November 2007is in compliance with the provisions of 37 CFR 1.97 and is being considered by the examiner.

***Double Patent Claiming***

4. Applicant is advised that should claim 18 be found allowable, claim 19 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 16-18, 25-26, 28, and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Widergen et al.** (hereinafter Widergen) (US 5,890,064) in view of **Mauger et al.** (hereinafter Mauger) (US 5,537,610).

Regarding **claim 16**, Widergen discloses a call originating service method in a public/private common mobile communication system, the method comprising:

providing the telecommunications network (100) which reads on the claimed “public/private common mobile communication system” comprising a plurality of mobile terminals (116) which reads on the claimed “mobile stations (MSs)”, a mobile switching center (MSC) (112), a plurality of public mobile communication network base station controllers (BSCs) connected to the MSC (112), a plurality of public mobile communication

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network base station transceiver subsystems (BTSs) (114) connected to each of the plurality of BSCs, each of the plurality of these BTSs adapted to form a corresponding public-only coverage area (140) which reads on the claimed “cell area”, a wireless office gateway (124) which reads on the claimed “public/private communication service unit” connected to one of the public mobile communication network's BSCs, and a RAN (126 - “includes radio equipment of RAN”; see col. 5, line 40-41) which reads on the claimed “private BTS” connected to the public/private communication service unit (124), the private BTS (126) adapted to form a public/private common cell area, one of said plurality of Mss being within said public/private common cell area (see col. 3, lines 61 - col. 4, line 25; Fig. 1), where the telecommunication network includes public and private coverage areas. The network including BSCs for controlling BS (114) as part of a base station subsystem and a plurality of network components would be obvious (see col. 4, lines 8-10,1-4), where the amount of components for the network can vary depending on factors such as size and scalability. ;

receiving at the public/private communication service unit (124) a call setup messages which reads on the claimed “call origination message” from the MS (122) in the public/private common cell area (142) through the private BTS (126) (see col. 7, lines 4-12,55-62; Fig. 1), where the network applies call setup messages for communicating with the terminals of the network;

determining whether the MS (120) in the public/private common cell area (142) is registered for a private mobile communication service by analyzing the received call origination message (see col. 7, lines 16-22,55-62), where the PN is used for determining if communication is for the corporate terminal (e.g., CMT - 120);

transmitting transparently the call origination message when the MS (11) in the public/private common cell area (142) is not registered for the private mobile communication service (see col. 13, lines 34-57), where calls from public mobile terminals (PMT) within the wireless office system (142) are transmitted to the MSC (112) which indicates the PMT are guest and not registered for the private cell area. The communication between the WO Gateway (124) and MSC (112) is via a trunk line (C) (see col. 7, lines 4-22; col. 9, lines 39-58; col. 12, lines 1-10,34-37; col. 13, lines 34-67; Fig. 1), where the originating of a call is transparent (see col. 7, lines 63-65; col. 9, lines 42-45,48-50) in which one of ordinary skill would clearly recognize that telecommunication systems are able to communicate and provide interoperability by using common standards, protocols, and signaling. The call origination message includes a phone number of the called party (see col. 7, lines 4-22; col. 13, lines 34-57), where calls for public mobile terminals (PMT) are directed to the MSC (112). As a note, the MSC provides the operations and functionality of a BSC in which one of ordinary skill in art would clearly recognize. , and

determining whether identification information for the private mobile communication service is included in the call origination message when the MS (120) in the public/private common cell area (142) is registered for the private mobile communication service (see col. 7, lines 4-22; col. 7, line 56 - col. 8, line 6); and

transmitting transparently the call origination message when the identification information (PN) is not included in the call origination message (see col. 7, lines 4-22; col. 13, lines 34-57), where calls for public mobile terminals (PMT) are directed to the MSC (112) which indicates the PMT do not have a PN, and

providing private mobile communication service for the MS (120) in the public/private common cell area when the identification information (PN) is included in the call origination message (see col. 7, lines 4-22), where the calls are directed to corporate terminals (120) according to the PN. Widergen inexplicitly discloses having the feature(s) of transparently transmitting the call origination message to one of said plurality of public mobile communication network BSCs. However, the examiner maintains that the feature(s) of transparently transmitting the call origination message to one of said plurality of public mobile communication network BSCs was well known in the art, as taught by Mauger.

In the same field of endeavor, Mauger discloses the feature(s) of transparently transmitting the call origination message to one of said plurality of public mobile communication network BSCs (63) (see col. 11, line 66 - col. 12, line 2; col. 11, lines 49-53; col. 14, lines 41-48; col. 15, lines 20-27; Figs. 22, 24, & 27), where the calls are transmitted between the PABX (60) to a BSC (63) which is an intelligent BSC with MSC functionality. As a note, Mauger at the least further discloses the feature(s) when the MS in the public/private common cell area (e.g., corporate site 5) is not registered for the private mobile communication service, and determining whether identification information for the private mobile communication service is included in the call origination message when the MS in the public/private common cell area is registered for the private mobile communication service (see col. 11, lines 35-40, 49-53; col. 11, line 66 - col. 12, line 2; col. 14, lines 41-48; col. 15, lines 20-27; Figs. 22, 24, & 27); and when the identification information (e.g., a corporate number) is not included in the call origination message, and providing private mobile communication service for the MS in the public/private common

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cell area when the identification information is included in the call origination message (see col. 11, lines 35-40, 49-53; col. 11, line 66 - col. 12, line 2; col. 14, lines 41-48; col. 15, lines 20-27; Figs. 22, 24, & 27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen and Mauger to have the feature(s) of transparently transmitting the call origination message to one of said plurality of public mobile communication network BSCs, in order to provide a mobile communications network including a PCN network and a PABX coupled to the PCN network whereby calls involving mobile subscribers associated with the PABX are routed via the PCN network, as taught by Mauger (see col. 1, line 65 - col. 2, line 2).

Regarding **claim 17**, Widergen discloses of a public/private common mobile communication system (100) adapted to provide a public/private mobile communication service in association with a public land mobile network (PLMN) (102) (see Fig. 1), the system comprising:

a plurality of mobile stations (MSs) (116), a mobile switching center (MSC) (112), a plurality of public mobile communication network base station controllers (BSCs) connected to the MSC (112), and a plurality of public mobile communication network base station transceiver subsystems (BTSs) (114) connected to the BSC's, each of the plurality of public mobile communication network BTSs being adapted to form corresponding public-only cell areas (140) (see col. 4, lines 4-16), where the network includes a base station (114) in which the BSC would be obvious for controlling the base station. Also, the plurality of



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components would be obvious according to factors such as size and scalability (see col. 4, lines 8-10);

a private BTS (126) connected to the public/private communication service unit (124), the private BTS (126) adapted to form a public/private common cell area (142), the public/private communication service unit (124) receives a call origination message from a particular one of the plurality of MSs (120) located in the public/private common cell area (142) through the private BTS (126) (see col. 7, lines 4-22,55-62; Fig. 1),

the public/private communication service unit (124) being configured to transparently transmit the call origination message when the call origination message is a public mobile communication service request message (see col. 10, line 56 - col. 11, line 1; col. 13, lines 34-57), where calls for the public system is routed between the WO Gateway (124) and the MSC (112) via the trunk line,

the public/private communication service unit (124) being configured to provide network access for a corresponding private mobile communication service when the call origination message is a private mobile communication service request message (see col. 5, lines 60-67; col. 7, lines 55-62). Widergen inexplicitly discloses having the feature(s) a public/private communication service unit connected to one of said plurality of public mobile communication network BSCs; transparently transmit the call origination message to one of the plurality of public mobile communication network BSCs. However, the examiner maintains that the feature(s) a public/private communication service unit connected to one of said plurality of public mobile communication network BSCs; transparently transmit the call

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origination message to one of the plurality of public mobile communication network BSCs was well known in the art, as taught by Mauger.

Mauger further discloses the feature(s) a PABX (60) which reads on the claimed “public/private communication service unit” connected to one of said plurality of public mobile communication network BSCs (63) (see col. 14, lines 42-58; col. 15, lines 20-23; Figs. 24, 26, 27), where corporate site (5) is able to provide communication services;

transparently transmit the call origination message to one of the plurality of public mobile communication network BSCs (63) (see col. 11, lines 35-40, 49-53; col. 11, line 66 - col. 12, line 2; col. 14, lines 41-48; col. 15, lines 20-27; Figs. 22, 24, & 27), where the calls are transmitted between the PABX (60) to a BSC (63) which is an intelligent BSC with MSC functionality. As a note, Mauger at the least further discloses the feature(s) when the call origination message is a public mobile communication service request message, the public/private communication service unit being configured to provide network access for a corresponding private mobile communication service when the call origination message is a private mobile communication service request message (see col. 11, lines 35-40, 49-53; col. 11, line 66 - col. 12, line 2; col. 14, lines 41-48; col. 15, lines 20-27; Figs. 22, 24, & 27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen and Mauger to have the feature(s) a public/private communication service unit connected to one of said plurality of public mobile communication network BSCs; transparently transmit the call origination message to one of the plurality of public mobile communication network BSCs, in order to provide a mobile communications network including a PCN network and a PABX coupled to

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the PCN network whereby calls involving mobile subscribers associated with the PABX are routed via the PCN network, as taught by Mauger (see col. 1, line 65 - col. 2, line 2).

Regarding **claim 18**, Widergen discloses a call originating service method in a public/private common mobile communication system (100) (see Fig. 1), the method comprising:

providing the public/private common mobile communication system (100) comprising a plurality of mobile stations (MSs) (116), a mobile switching center (MSC) (112), a plurality of public mobile communication network base station controllers (BSCs) connected to the MSC (112), a plurality of public mobile communication network base station transceiver subsystems (BTSs) (114) connected to each of the BSC's, each of the plurality of public mobile communication network BTSs (114) adapted to form a corresponding public-only cell area (coverage area) (140) (see col. 3, line 61 - col. 4, line 16), where the network includes a base station (114) in which the BSC would be obvious for controlling the base station. Also, the plurality of components would be obvious according to factors such as size and scalability (see col. 4, lines 8-10),

a private BTS (126) connected to the public/private communication service unit (124), the private BTS (126) adapted to form a public/private common cell area (142) (see Fig. 1);

determining whether a call origination message is a public mobile communication service request message or a private mobile communication service request message upon receiving the call origination message that requests origination of a call from one of said plurality of mobile stations (120) located in said public/private common cell area (142) through the

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private BTS (126) (see col. 7, lines 4-22,55-67; col. 9, lines 1-67), where calls for communication are routed to a mobile located in the public or private system; and

transmitting transparently the call origination message to a public land mobile network (PLMN) (102) when the call origination message is a public mobile communication service request message (see col. 7, lines 4-15; col. 9, lines 39-58; col. 12, lines 34-37; col. 13, lines 34-67), and

providing a corresponding private mobile communication service when the call origination message is a private mobile communication service request message (see col. 7, lines 4-22,55-62). Widergen inexplicitly discloses having the feature(s) a public/private communication service unit connected to a particular one of the plurality of public mobile communication network BSCs; transmitting transparently the call origination message to a base station controller (BSC) of a public land mobile network (PLMN). However, the examiner maintains that the feature a public/private communication service unit connected to a particular one of the plurality of public mobile communication network BSCs; transmitting transparently the call origination message to a base station controller (BSC) of a public land mobile network (PLMN) was well known in the art, as taught by Mauger.

Mauger further discloses the feature a public/private communication service unit (60) connected to a particular one of the plurality of public mobile communication network BSCs (63) (see col. 14, lines 42-58; col. 15, lines 20-23; Figs. 24, 26, 27);

transmitting transparently the call origination message to a base station controller (BSC) of a public land mobile network (PLMN) (see col. 11, lines 35-40, 49-53; col. 11, line 66 - col. 12, line 2; col. 14, lines 41-48; col. 15, lines 20-27; Figs. 22, 24, & 27), where corporate

site (5) is able to provide communication services and the calls are transmitted between the PABX (60) to a BSC (63) which is an intelligent BSC with MSC functionality.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen and Mauger to have the feature a public/private communication service unit connected to a particular one of the plurality of public mobile communication network BSCs; transmitting transparently the call origination message to a base station controller (BSC) of a public land mobile network (PLMN), in order to provide a mobile communications network including a PCN network and a PABX coupled to the PCN network whereby calls involving mobile subscribers associated with the PABX are routed via the PCN network, as taught by Mauger (see col. 1, line 65 - col. 2, line 2).

Regarding **claim 25**, the combination of Widergen and Mauger discloses every limitation claimed, as applied above (see claim 16), in addition Widergen further discloses the method of claim 16, the common cell area (142) being an area that provides both public mobile and private mobile communication services to a MS (120) within the area without requiring the MS to roam (see Fig. 1), where the mobile terminals with area (142) are able to have public and private communication services.

Regarding **claim 26**, the combination of Widergen and Mauger discloses every limitation claimed, as applied above (see claim 17), in addition Widergen further discloses the method of claim 17, a public/private communication service unit (e.g., 142) and the private BTS (e.g., 126) providing both public and private mobile services simultaneously and without requiring a MS in the common cell area to roam to a new location to receive (see

Fig. 1), where the mobile terminals with area (142) are able to have public and private communication services.

Regarding **claim 28**, the combination of Widergen and Mauger discloses every limitation claimed, as applied above (see claim 16), in addition Widergen further discloses the method of claim 16, public mobile communication service or private mobile communication service is provided based on the call origination message transmitted from the MS (120) (see col. 7, lines 55-60; col. 8, lines 21-28; col. 9, lines 1-8,39-45; col. 10, lines 2-7), where a call is originated in which one of ordinary skill in the art would clearly recognize.

Regarding **claim 30**, the combination of Widergen and Mauger discloses every limitation claimed, as applied above (see claim 16), in addition Widergen further discloses the method of claim 16, the call origination message being a message according to MS (120) communication signaling (see col. 5, lines 4-41; col. 7, lines 55-60), where a call is originated in which one of ordinary skill in the art would clearly recognize.

**Claims 19 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Widergen et al.** (hereinafter Widergen) (US 5,890,064) in view of **Fujii** (US 5,818,918).

Regarding **claim 19**, Widergen discloses a call originating service method in a public/private common mobile communication system (100), the method comprising:

providing a public land mobile network (PLMN) (102) comprising a base station transceiver subsystem (BTS) (114) adapted to form a public cell area that is interworked with a private mobile communication network (142) comprising a BTS adapted to form a

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public/private common cell area (142) enabling a subscriber (120) to be provided with both a public mobile communication service and a private mobile communication service using a single mobile station (120) in said public/private common cell area (142) (see col. 3, line 61 - col. 4, line 19; col. 4, lines 27-33; Fig. 1);

determining whether a call origination message is a public mobile communication service request message or a private mobile communication service request message upon receiving the call origination message for requesting origination of a call from a mobile station (CMT - 120) in the public/private common cell area through the BTS (126) in the private mobile communication network (142) (see col. 7, lines 4-22,55-67; col. 9, lines 1-67), where calls for communication are routed to a mobile located in the public or private system; and

transparently transmitting the call origination message to the PLMN when the call origination message is a public mobile communication service request message (see col. 7, lines 4-15; col. 9, lines 39-58; col. 12, lines 34-37; col. 13, lines 34-67), where the originating of a call is transparent (see col. 9, lines 42-45,48-50) in which one of ordinary skill would clearly recognized that telecommunication systems are able to communicate and provide interoperability by using common standards, protocols, and signaling, and

providing a corresponding private mobile communication service when the call origination message is a private mobile communication service request message (see col. 7, lines 4-22,55-62). Widergen inexplicitly discloses having the feature(s) transparently transmitting the call origination message to a base station controller (BSC) of the PLMN. However, the examiner maintains that the feature(s) transparently transmitting the call

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origination message to a base station controller (BSC) of the PLMN was well known in the art, as taught by Fujii.

In the same field of endeavor, Fujii discloses the feature(s) transparently transmitting the call origination message a base station controller (BSC) of the PLMN (see col. 2, lines 25-45; Figs. 1), where the PBX(15) is directly connected to the public PHS network (11) in which a base station controller would be inherent as evidenced by the fact that one of ordinary skill in the art would clearly recognize. As a note, Fujii at the least further discloses the feature(s) when the call origination message is a public mobile communication service request message, and providing a corresponding private mobile communication service when the call origination message is a private mobile communication service request message (see col. 3, lines 31-43; col. 2, lines 25-45; Figs. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen and Fujii to have the feature(s) transparently transmitting the call origination message to a base station controller (BSC) of the PLMN, in order to provide a personal handy phone system which enables communication between a private PHS base station and a public PHS terminal, as taught by Fujii (see col. 1, lines 37-39).

Regarding **claim 27**, the combination of Widergen and Fujii discloses every limitation claimed, as applied above (see claim 19), in addition Widergen further discloses the method of claim 19, the public/private common cell (142) area providing both public mobile and private mobile services to a MS (120) located within the common cell, both public mobile and private mobile services being available to the MS without requiring the



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MS to move or roam to a different location (see Fig. 1), where the mobile terminals with area (142) are able to have public and private communication services.

**Claims 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Widergen et al.** (hereinafter Widergen) (**US 5,890,064**) in view of **Mauger et al.** (hereinafter Mauger) (**US 5,537,610**) as applied to claims 16 and 17 above, and further in view of **Fujii** (**US 5,818,918**).

Regarding **claim 20**, the combination of Widergen and Mauger discloses every limitation claimed as applied above in claim 16. The combination of Widergen and Mauger does not specifically disclose having the feature calls from the MS in the common cell area to the public mobile communication network are directly connected and interworked with the public mobile communication network without having to go through additional circuitry. However, the examiner maintains that the feature calls from the MS in the common cell area to the public mobile communication network are directly connected and interworked with the public mobile communication network without having to go through additional circuitry was well known in the art, as taught by Fujii.

In the same field of endeavor, Fujii discloses the feature calls from the MS in the common cell area (18) to the public PHS network (11) which reads on the claimed “public mobile communication network” are directly connected and interworked with the public mobile communication network (11) without having to go through additional circuitry (see col. 2, lines 25-45; Figs. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen, Mauger, and Fujii to have the feature calls from the MS in the common cell area to the public mobile communication network are directly connected and interworked with the public mobile communication network without having to go through additional circuitry, in order to provide a personal handy phone system which enables communication between a private PHS base station and a public PHS terminal, as taught by Fujii (see col. 1, lines 37-39).

Regarding **claim 21**, the combination of Widergen and Mauger discloses every limitation claimed as applied above in claim 17. The combination of Widergen and Mauger does not specifically disclose having the feature calls from the MS in the common cell area to the public mobile communication network are directly connected and interworked with the public mobile communication network without having to go through additional circuitry. However, the examiner maintains that the feature calls from the MS in the common cell area to the public mobile communication network are directly connected and interworked with the public mobile communication network without having to go through additional circuitry was well known in the art, as taught by Fujii.

Fujii further discloses the feature calls from the MS in the common cell area (18) to the public PHS network (11) which reads on the claimed “public mobile communication network” are directly connected and interworked with the public mobile communication network (11) without having to go through additional circuitry (see col. 2, lines 25-45; Figs. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen, Mauger, and Fujii to have the feature calls from the MS in the common cell area to the public mobile communication network are directly connected and interworked with the public mobile communication network without having to go through additional circuitry, in order to provide a personal handy phone system which enables communication between a private PHS base station and a public PHS terminal, as taught by Fujii (see col. 1, lines 37-39).

**Claims 22 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Widergen et al.** (hereinafter Widergen) (**US 5,890,064**) in view of **Mauger et al.** (hereinafter Mauger) (**US 5,537,610**) as applied to claims 16 and 17 above, and further in view of **Lu et al.** (hereinafter Lu) (**US 5,537,610**).

Regarding **claim 22**, the combination of Widergen and Mauger discloses every limitation claimed as applied above in claim 16. The combination of Widergen and Mauger does not specifically disclose having the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network. However, the examiner maintains that the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network was well known in the art, as taught by Lu.

In the same field of endeavor, Lu discloses the feature(s) calls from the MS (458) in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network (see col. 15, lines 41-63; Figs. 6A, 7, 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen, Mauger, and Lu to have the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network, in order to reduce the usage of public network bandwidth with a consequent reduction in the charges, as taught by Lu (see col. 15, lines 60-63; col. 6, lines 64-67).

Regarding **claim 24**, the combination of Widergen and Mauger discloses every limitation claimed as applied above in claim 17. The combination of Widergen and Mauger does not specifically discloses having the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network. However, the examiner maintains that the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network was well known in the art, as taught by Lu.

Lu further discloses the feature(s) calls from the MS (458) in the common cell area to the private mobile communication service are not routed through a public mobile

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communications network and are not routed through a landline telephone network (see col. 15, lines 41-63; Figs. 6A, 7, 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen, Mauger, and Lu to have the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network, in order to reduce the usage of public network bandwidth with a consequent reduction in the charges, as taught by Lu (see col. 15, lines 60-63; col. 6, lines 64-67).

**Claim 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Widergen et al.** (hereinafter Widergen) (US 5,890,064) in view of **Fujii** (US 5,818,918) as applied to claim 19 above, and further in view of **Lu et al.** (hereinafter Lu) (US 5,537,610).

Regarding **claim 23**, the combination of Widergen and Fujii discloses every limitation claimed as applied above in claim 19. The combination of Widergen and Fujii inexplicitly discloses having the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network. However, the examiner maintains that the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network was well known in the art, as taught by Lu.

Lu further discloses the feature(s) calls from the MS (458) in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network (see col. 15, lines 41-63; Figs. 6A, 7, 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Widergen, Fujii, and Lu to have the feature(s) calls from the MS in the common cell area to the private mobile communication service are not routed through a public mobile communications network and are not routed through a landline telephone network, in order to reduce the usage of public network bandwidth with a consequent reduction in the charges, as taught by Lu (see col. 15, lines 60-63; col. 6, lines 64-67).

***Response to Arguments***

6. Applicant's arguments with respect to claims 16-28 and 30 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amended language and/or new limitations.

In response to applicant's arguments, the Examiner respectfully disagrees as the applied reference(s) provide more than adequate support and to further clarify (see the above claims for relevant citations).

7. The Examiner requests applicant to provide support (e.g., page(s), line(s), and drawing(s) as well as comments) for the any further amended claim language.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Roberts et al. (US 6,208,869 B1) discloses a mobile radio communicating system including both a public system and at least on private system.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WJD,JR/

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04 February 2008



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